



5M, INC., P.O. BOX 752, HURRICANE, UTAH 84737 (801) 635-4473



April 13, 1978

State of Utah  
Department of Natural Resources  
Division of Oil, Gas, & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Dear Sir:

In accordance with the general provisions of the Utah Mined Land Reclamation Act, the attached Notice of Intention to Commence Mining Operations, and Mining and Reclamation Plan (with Supplement), are submitted, herewith, as pertaining to the area encompassing the Silver Reef Mines, Harrisburg Mining District, Washington County, Utah.

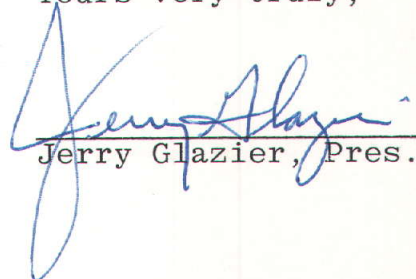
Also attached is a Narration of Proposed Action setting forth the general program for mining and milling operations on the Silver Reef.

5M, Inc., is now in process of posting a State wide, blanket bond in the amount of \$25,000.00 with the Division of State Lands, State of Utah.

*Exploration not Reclamation*

Where we can be helpful in providing any additional information, please contact us.

Yours very truly,

  
Jerry Glazier, Pres.

JG:wts

ENCLS

5M CORPORATION

Silver Reef Mines  
Harrisburg Mining District  
Washington County, Utah

TAB: A - 'Notice of Intentions to  
Commence Mining Operations'

TAB: B - Mining and Reclamation Plan

TAB: B-1 - Mining Plan (Supplement)

Hurricane, Utah  
April 13, 1978



5M CORPORATION  
Silver Reef Mines  
Harrisburg Mining District  
Washington County, Utah

MAPS

<u>Number</u>	<u>Identity</u>
✓ 1	- Mining Claim Plat & Property Map
✓ 2	- Present & Future Mining Areas
✓ 3	- Silver Reef Utilities
✓ 4	- Roads - Silver Reef
✓ 5	- Typical Types of Mining Operations (With Supplements)
✓ 6	- Typical Road Cross Section
7	- Mill Site
✓ 8	- Cross Section Silver Reef Geology
✓ 9	- Leach Facilities - Silver Reef
✓ 10	- Leach Channels
✓ 11	- Mining & Backfill Reclamation (With Supplements)
✓ 12	- Drill Hole Map - Exploration
✓ 13	- Geologic Map with Workings (1)
✓ 14	- Geologic Map with Workings (2)
✓ 15	- Topographic: Drainage & Roads



ACT/053/002  
MINING APPLICATION  
NO. 2

Date April 12, 1978

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116

NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS  
(See Rule M of General Rules and Regulations)

1. Name of Applicant or Company 5M, INCORPORATED  
Corporation (X) Partnership ( ) Individual ( )
2. Address P.O. Box 752, Hurricane, Utah 84737  
Permanent Temporary
3. Name and title of person representing company Jerry Glazier, President
4. Address 155 West, 100 South, Hurricane, Utah Office Phone (801) 635-4473
5. Location of Operation Washington Sec. 6 & 7 T. 41 S. R. 13 W.  
County 1, 11, 12, 13 & 14 41 S. 14 W.
6. Name of Mine Silver Reef Mines (Harrisburg Mining District)
7. Mineral to be mined: Mining method:  

( ) Coal	( ) Flagstone	<u>(1) Open Pit</u>
(X) Copper	( ) Gravel	
( ) Manganese	( ) Shale	<u>(2) Underground</u>
( ) Iron Ore	(X) Uranium	
( ) Phosphate	( ) Gilsonite	<u>(3) Room &amp; Pillar</u>
( ) Potash	( ) Bituminous Sandstone	
( ) Fluorspar	( ) Tungsten	
(X) Other (specify) <u>Silver &amp; Vanadium</u>		
8. Have you or any person, partnership or corporation associated with you received an approved Notice of Intention to Commence Mining Operations by the State of Utah for operations other than described herein?  
(X) Yes ( ) No  
If yes, list all approval numbers now under surety:  
MESA ID# 42-0127: John Henry Mine (COAL: Sec. 2, T. 42 S., R. 3 E.)  
Approval by Federal and State (BOND is with Federal BLM in the amount of  
\$20,000.00 posted as surety).
9. Owner/Owners of record of the surface area within the land to be affected:  
5M, Inc. &  
UNPATENTED MINING CLAIMS - U. S. Govt. Address Bureau of Land Management  
PATENTED MINING CLAIMS - 5M Incorporated Address 279 West State, Hurricane, Ut.  
Address  
Address



10. Owner/Owners of record of minerals to be mined:

<u>5M, Incorporated</u>	Address <u>279 West State, Hurricane, Ut.</u>
<u></u>	Address <u></u>
<u></u>	Address <u></u>
<u></u>	Address <u></u>

11. Owner/Owners of record of all other minerals within any part of the land affected:

<u>5M, Incorporated</u>	Address <u>279 West State, Hurricane, Ut.</u>
<u></u>	Address <u></u>
<u></u>	Address <u></u>

11a. Have the above owners been notified in writing? n/a  
( ) Yes ( ) No

12. Source of Operator's legal right to enter and conduct operations on land to be covered by the Notice 5M, Inc. ownership of PATENTED & UNPATENTED mining claims.

13. Approximate acreage to be disturbed:

A) Mining Operation Area -	<u>1,285</u>	acres
(include operations, storage, & disposal area)		
B) Access Road or Haulageway -	<u>46</u>	acres
C) Drainage System -	<u>21</u>	acres
TOTAL ACRES:	<u>1,352</u>	

14. Give the names and post office addresses of every principal Executive, Officer, Partner, (or person performing a similar function) of Applicant:

Name:	Title:	Address:
a. <u>Jerry Glazier</u>	<u>President</u>	<u>155 W., 100 S., Hurricane, Utah</u>
b. <u>Aaron H. Rasmussen</u>	<u>V/P</u>	<u>Veyo, Utah</u>
c. <u>William T. Sorensen</u>	<u>Sec./Treas.</u>	<u>P.O. Box 1144, St. George, Utah</u>
d. <u></u>		

15. Has Applicant, any subsidiary or affiliate or any person, partnership, association, trust, or corporation controlled by or under common control with Applicant, or any person required to be identified by Item 14, ever had an approval of a Notice of Intention withdrawn or has surety relating thereto ever been forfeited? ( ) Yes (X ) No

If yes, explain:



STATE OF UTAH  
COUNTY OF WASHINGTON

I, Jerry Glazier, having been duly sworn  
depote and attest that all of the representations contained in the foregoing  
application are true to the best of my knowledge; that I am authorized to  
complete and file this application on behalf of the Applicant and this  
application has been executed as required by law.

Signed: *Jerry Glazier*  
Jerry Glazier

Taken, subscribed and sworn to before me the undersigned authority  
in my said county, this 12th day of April, 1978

Notary Public: *Grant C. Tucker*

My Commission Expires: 8-7-81

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides as  
follows:

"Information relating to the location, size, or nature  
of the deposit and marked confidential by the operator,  
shall be protected as confidential information by the  
Board and the Division and not be a matter of public  
record in the absence of a written release from the  
operator, or until the mining operation has been  
terminated as provided in subsection (2) of section  
40-8-21."

Is confidential information contained herein?

YES *CONFIDENTIAL* (Initial)

NO *No May 11<sup>th</sup> 1978* (Initial)

Sections desired to be maintained as confidential information -

~~ALL~~ None  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116

MINING AND RECLAMATION PLAN

(Other forms may be used in lieu of MR 2, provided  
they contain the same information)

1. Name of Applicant or Company 5M, INCORPORATED
2. Proposed type of operation Mining and Milling
3. (a) Prior Land Use(s) Mining & milling operations  
(b) Current Land Use(s) Mining & milling operations  
Long term  
(c) Possible or Prospective Future Land Use(s) mining & milling ops.
4. What vegetation exists on the land proposed to be affected Cacti,  
Chapparal, very sparse Juniper/Cedar, grass, Sagebrush.  
(a) Types and Estimated Percent cover or density: Barren to sparse  
vegetation, with cover estimated at less than 10%.
5. What is the pH range of soil before mining? 8.5 to Neutral pH  
Name of Person or Agency and method of determining pH Paul Dean Proctor;  
Utah Geological & Mineralogical Survey - Geology of the Silver  
Reef; Bulletin No. 44 (April 1953)
6. Site elevation above sea level 3700 to 4000 feet.
7. In case of coal, oil shale, and bituminous sandstone: N/A  
Principal seam(s) and thickness(es) --
8. Estimated duration of mining operations Estimated in excess of 30 years.
9. Has overburden, waste or rejected materials been classified as acid or  
alkali producing? ( ☒ ) Yes ( ) No  
Does the above material being moved have any other characteristics  
affecting revegetation? Slightly alkaline to neutral
10. Will any underground workings or aquifers be encountered? ( ☒ ) Yes ( ) No  
Describe Continued mining operations and renovations  
Is there an active discharge of water from abandoned deep mines on or  
crossing the land affected? ( ) Yes ( ☒ ) No If yes, describe  
the quality of water being discharged. \_\_\_\_\_



11. Describe specifically a detailed procedure for: (\*\*See supplement attached)
- (a) The mining sequence
  - (b) The procedure for constructing and maintaining access roads, to include a typical cross-section and a profile of the proposed road grades.
  - (c) The procedure for site preparation including removing trees and brush.
  - (d) The method for removing and stockpiling topsoil or disturbed materials.
  - (e) The method for the placement or containment of all disturbed materials, to include the method for handling of all acid or alkali-producing and toxic materials.
  - (f) A procedure for final stabilization of disturbed materials.

#### GRADING AND REGRADING

Specifically describe:

- (a) Typical cross-section of regrading.
- (b) The method of spreading topsoil or upper horizon material on the regraded area and indicate the approximate thickness of the final surfacing material.
- (c) What type of soil treatment will be utilized.
- (d) The method of drainage control for the final regraded area.
- (e) Maximum grading slope.

#### TESTING

1. Describe method for testing stability of reclamation fill material.

By use of test holes.

Describe method for the testing of soil that is intended to support vegetation

Analysis for alkalinity/acidity; other characteristics.

2. Describe any soil treatment employed as an aid to revegetation \_\_\_\_\_

The addition of fertilizers as necessary.

3. Describe surface preparation of areas intended to support vegetation:

Compaction stabilization test, harrowing, scarifying, grading, seeding, planting, fertilization, drainage and erosion control.

#### REVEGETATION

1. Revegetation to be completed by:

- ☒ Operator
- ☐ Soil Conservation District
- ☐ Private Contractor
- ☐ Other (specify) \_\_\_\_\_

- ☐ Hydroseeding
- ☐ Aerial Seeding
- ☒ Conventional or Rangeland Drill
- ☒ Broadcast and Drag
- ☐ Other \_\_\_\_\_



5M, Inc.  
Silver Reef Mines

NR FORM 2 (Supplement)  
Mining and Reclamation Plan

PARAGRAPH 11: Describe specifically a detailed procedure for:

(a) The Mining sequence:

The mining sequence will consist of a combination of open cut, underground mining, and existing dump's. First phase emphasis will be placed on removal of the dumps to the Heap-Leach facilities, and in addition to the open cut operations. Underground mining and renovations will progress with the later phases of development.

The open cut, mining technique will include a follow up method of replacing the disturbed reject materials as containments. Such use of the backfilled materials will allow the reclamation to follow close behind the mining operations. (See Drawing No. 11).

*White Reef*  
Open cut mining will at times include the removal of the entire Techumseh/Leeds strata as a large volume, low grade, operation. At other times, the selective, open cut, method will constitute a minimum of 5 to 1 waste-to-ore relation. For example, a 100 foot face of Techumseh/Leeds strata would equate to 80 feet of waste times 20 feet of ore. This would permit a maximum of 80 feet of waste to be placed on the slopes and reclaimed as appropriate. (See Drawing No. 11).

As the open cut benching reaches the valley floor, the alluvial soils will partially be available as fill cover for the backfilled materials being placed on the reclaimed slopes. Also, at the valley floor level the ore horizon goes underground. The mining operations will then convert to underground Room & Pillar methods of removal. (See Drawing No. 5). Emphasis, however, will be placed on following the old river channels possessing higher ore values underground, and will be a limited program with first priorities placed on the lateral continuation of the available surface stripping of the horizons as shown on drawing.

The underthrust is shown by the ASAR shaft as shown on Drawing No. 8. This presents still another potential underground ore horizon which may at some future time become economical to mine using conventional shaft and underground mining methods. Also of note, the Leeds Mine is a further example of underthrust mining in the Big Hill area. (See Drawing No's. 13 & 14).

(b) Access roads and grades:

Refer to Drawings No's. 4 & 6. 5M, Inc., equipment will be used to maintain and improve the access & tram roads with use of haul trucks, motor graders, front-end loaders, crushers, screening plants, water trucks, compactors, backhoes, etc.



NR FORM 2 (Supplement)  
Mining and Reclamation Plan  
Paragraph 11 (Cont'd.)

The necessary coarse base and fine surface gravels, required along with the cross drainage culverts, etc., explains the procedure for constructing and maintaining roads, drainage, etc. (See Drawing No. 6).

(c) Site preparation:

Vegetation involved at this mine site is minimal. Removal will be a part of a general leveling program for some of the low eroded areas requiring fill. Brush can be buried in the low areas with topsoil cover.

(d) Stockpiling topsoil:

Removal and placement of the very limited topsoil will be according to sites as described on Drawing No. 9. Placement will be in areas where erosion will be restricted, and drainage can be controlled as required.

(e) Placement of disturbed materials:

See subparagraph (a) above, and Drawing No. 11. Also, see 'Mining Plan - Supplement', Page 7, Toxic Materials.

(f) Stabilization of disturbed materials:

See 'Mining Plan (Supplement)', Page 4, Reclamation.

GRADING AND REGRADING:

(a) Cross-section of regrading:

See Drawing No. 5 & 11 - Surface covering, compacting, grading.

(b) Spreading topsoil:

Trucks, loaders, graders, land levelers (See Drawing No. 5 & 11.

(c) Soil treatment:

Possibly some fertilization for grasses, shrubs, trees, etc.

(d) Drainage control:

See Drawing No's. 11 & 15. - Controlling erosion & drainage.

(e) Maximum grading slope: 45 degrees.



2. Will Mulch be used? ( ) Yes (X) No

Type: \_\_\_\_\_ Rate/Acre \_\_\_\_\_ lbs.

3. Revegetation Plan and Schedule -

Species	Rate/ Acre	Planting Location	Facing N-S-E-W	Season to be replanted
Sagebrush	**			
Grass	**			
Chapparal	**			
Cacti	**			
Juniper/Cedar	**			

4. Will affected area be subject to livestock or wildlife grazing?

(x) Yes ( ) No Will vegetation protection be needed? Possibly

In the past, the BLM has allowed limited access by public stock for grazing. Consideration is given to fencing entire area.

5. Will irrigation be used: (x) Yes ( ) No Type Sprinkling System Irrigation, if needed.

6. Describe maintenance procedures for revegetation if needed, until surety release is granted.

\*\* 5M, Inc., will maintain a program of vegetation rehabilitation for the required 3 year period over the disturbed land area, and with the objective of obtaining a minimum of 70% growth as represented over the similar

existing ground cover in the area of the disturbed lands.



STATE OF UTAH

COUNTY OF WASHINGTON

I, Jerry Glazier, having been duly sworn  
depose and attest that all of the representations contained in the foregoing  
application are true to the best of my knowledge; that I am authorized to  
complete and file this application on behalf of the Applicant and this  
application has been executed as required by law.

Signed: *Jerry Glazier*

Taken, subscribed and sworn to before me the undersigned authority  
in my said county, this 12th day of April, 1978.

Notary Public: *Grant C. Tucker*

My Commission Expires: 8-7-81

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides as follows:

"Information relating to the location, size, or nature of the deposit and marked confidential by the operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the operator, or until the mining operation has been terminated as provided in subsection (2) of section 40-8-21."

Is confidential information contained herein?

YES *ENTER BY JGL* (Initial)

NO *No May 11<sup>th</sup> 1978* (Initial)

Sections desired to be maintained as confidential information -

*ALL NONE* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



5M, Incorporated  
Silver Reef Mines  
Harrisburg Mining District  
Washington County, Utah

TAB: B-1  
(Supplement)

### MINING PLAN

#### Underground:

Mining operations are to include a multi-seam, underground operations utilizing the conventional Room & Pillar method, a two-heading entry system providing ventilation, escape ways, and supply and haulage access. The operations will employ conventional mining with face drill, load-haul-dump diesel powered loaders, rubber tired tramping trucks, and roof bolters, etc. (See Drawing No's. 2 & 5).

#### Surface Mining:

Surface mining methods will involve open cuts, open pitting, and channel excavations. The operations will be selective at times, mining from one to five bedding type, ore stratas lying within some 100 feet of the Techumseh/Leeds Cap Rock strata, and located on the claims. Some areas may allow mining of the complete Techumseh/Leeds section, consisting of up to 100 feet of sandstone, shales, and clays. When the latter occurs (which in turn is dependent upon the economics involved), the relatively smooth, 30 degree sloping anticlinal structure that remains after mining will have a sandstone clay surface, known as the Trail Hill strata, and is substantially a much better host for vegetation and cover than the existing sandstone which has little or no protective cover of soil or clay. (See Drawing No. 8).



5M, Inc.  
Silver Reef Mines  
Mining Plan

It is proposed that the mining operations concentrate first on the higher value ores, to be followed over an extended period of time by the lesser value ores, and that mining be accomplished throughout the entire Silver Reef claims.

Equipment:

Equipment to be used in the mining operation will consist of the track type excavators, rubber tired loaders, rubber tired haul units, track drill, air compressors, track and rubber tired dozers, etc.

Support Facilities:

Required buildings and structures will be constructed on private lands, i.e., Fee Simple lands and Patented Claims, and in accordance with the prescribed specifications of county and state agencies. All installations will provide for the necessary maintenance, administration, etc., and will comply with the standards set forth by the Utah Department of Health.

Access & Tramping Roads:

Access roads to the Silver Reef Mines are both state and county. Once on the site, however, the roads are on private lands and become private to 5M, Inc. The existing access and tram roads, connecting the various claims, lead to the centralized milling facilities, also situated on private land. The maintenance of all roads during operations will comply with county and state standards. (See Drawing No. 4).

The private access and tram roads are generally flat,



5M, Inc.  
Silver Reef Mines  
Mining Plan

and lying within an area of little elevation change. Road drainage facilities, borrow ditches, etc., will be maintained, together with the continued use of the appropriate gravel and base materials, to ensure maximum weight support. Roads will be kept watered, graded, and compacted for maximum dust control, safety, maintenance, etc. (See Drawing No. 6).

Ore Processing: (Lower Value Ores)

Mined ores will be hauled on the private access and tram roads to the processing area. (See Drawing No. 4). Here the ore will be crushed to a two inch minus material. Lower value ore will then be placed in the Heap-Leach facilities. (See Drawing No. 9; also, Drawing No. 10).

Having been deposited in the Heap-Leach facilities, the ore is then sprinkled with solutions to dissolve the metals and convert them to soluble form. A collection tank is placed to receive the soluble solutions which are now ready for delivery to the electro-winning, precipitation, and ion-exchange circuits. Here the solutions are processed for recovery of the metals, and the latter made ready for market in the form of cements, electro-won crystals, cakes and slurries. Any solutions remaining following the metals recovery are then reinstated and returned to the Heap-Leach to form a closed circuit recovery and continued use of all solutions. This process is notable, inasmuch as it does not involve, at any time, the use of the conventional, air-polluting smelter, but is strictly a process of electro-



5M, Inc.  
Silver Reef Mines  
Mining Plan

chemical extraction of the metals in a fully controlled environment.

Ore Processing: (Higher Value Ores)

Higher value ores will at times require a crushing finer than the two inch minus referred to above, and may be reduced to a 20 to 60 mesh. At this point, the Agitation Leach facility will enable a more rapid reduction of the metals to a soluble form. As a matter of higher use, however, the Heap-Leach circuit handles far greater quantities of ore processing than does the Agitation circuit, and is, therefore, a most essential part of the milling process. (See Drawing No. 7, showing the circuit location for the Agitation facilities, Electro-winning, Precipitation, and the Resin ION-Exchange).

Reject Materials:

During the mining operations of a given area, the dry reject materials will be used for terracing and benching, or otherwise as fills in areas where backfilling of open cuts, pits, eroded areas, etc., may better utilize the materials. This in turn will make possible an improved utilization of the land areas for post mining or future use. (See Drawing No. 11).

Reclamation:

All waste piles, spoil piles, fills, etc., shall where possible be regraded to a rounded configuration and sloped appropriately to minimize safety hazards and erosion. In



5M, Inc.  
Silver Reef Mines  
Mining Plan

doing so, it is proposed to compact the materials and revegetate the areas where sufficient surface soils are available, and where in each instance it is determined practicable and feasible. In like manner, it is also proposed that surface drainages be maintained in the areas needed as reclamation proceeds. Cross-slope ripping or scarifying will be part of the reclamation method used in establishing new vegetation and growth in disturbed areas.

Open pit areas are to be benched insofar as possible, and when not backfilled, will be reclaimed by backfilling against the wall with the appropriate slope, or by cutting the wall back to achieve a slope angle of 45 degrees or less. Some wall areas, however, will be composed of solid rock, and may, in such instances, be better left as is, than to continue to disturb the solid materials.

Roads and pads, when no longer useful, will be reclaimed or stabilized. Such reclamation will include adequate drainage, erosion control, and unrestricted drainage crossings.

All natural channels and associated flood plains will be retained in their natural state insofar as possible; and in any case, will not be covered, restricted or rerouted by roads, pads, piles, fills, or diversions, except as may be authorized.

All unnecessary structures, rail lines, utility connections, equipment, and debris will be removed from the surface prior to regrading and reclaiming, unless



5M, Inc.  
Silver Reef Mines  
Mining Plan

otherwise authorized for continued or future use.

All spoil, ore, waste, fill material, and debris will be removed from the natural channels and flood plains before abandoning an area, except as may otherwise be authorized. In like manner, shafts, portals, trenches, and small pits will be backfilled or covered to the extent required.

Mining operations are to be conducted in such a manner as to insure that sediments arising in the disturbed areas are adequately controlled, and accomplished in conformance to the topographic, soil, drainage, waste quality, and other characteristics of the immediate, as well as the general area.

The construction of berms, fences, and/or barriers above high walls, or other excavations, will be installed when and as required.

Drill and exploratory holes will be capped and/or plugged as required by regulations. (See Drawing No. 12).

Posting of Signs:

The posting of warning signs, or other notices of caution or danger, will be used in the mining and milling areas as considered necessary, and as part of the public welfare and safety measures performed by the company.

Drainage:

In process of construction, provision will be made for pads, fills, sediment ponds, spoil piles, tailings and evaporation ponds, and regraded areas, to be self-draining,



5M, Inc.  
Silver Reef Mines  
Mining Plan

or otherwise as may be approved in the particular circumstance or situation. (See Drawing No. 15).

Toxic Materials:

It is the intention of 5M, Inc., to comply with the State Division of Health, and other state and Federal agencies, in regulations pertaining to toxic materials if or when produced in the mining or milling processes. In any case, they shall be removed or left in an isolated condition such that any solids, liquids, or gaseous toxic emissions will be reasonably eliminated or controlled. Such methods of control may include, but not be limited to, burial, filtering, neutralization, sub-surface injection, or chemical precipitation.

Soil Covering:

The mining areas comprising the Silver Reef Mines are, for the most part, rocky terrain with gentle to steep slopes, and having very little, if any, protection covering of suitable soils. In the few areas where a surface soil does exist, care will be taken prior to any major excavations to have the soil covering removed, segregated and stockpiled according to the soil's capability to support vegetation. Stockpiles will in turn be protected to minimize wind and water erosion.

Revegetation:

Redistribution of the soil materials after final grading will be accomplished in such a manner as to promote success in revegetation using non-noxious, perennial plants of a diverse mixture, such as grasses, shrubs, forbs, trees, etc.



5M, Inc.  
Silver Reef Mines  
Mining Plan

Revegetation will be performed using professionally accepted methods, such as seeding, transplanting, propagating by cuttings, etc., and by employing land treatment methods, such as scarifying, fertilization, irrigation, plowing, etc. *mulching*

Tonnage:

5M, Inc., is of the opinion, based upon extensive explorations to date, that the Silver Reef properties are of sufficient tonnage to sustain a continuous, high volume, mining and milling operation for a period in excess of thirty years. The enclosed maps, details, and facilities referenced herein, and comprising the continued mining and milling operations set forth in Phase I of these operations, are for the purpose of documenting the capacity and equipment requirements to process several million tons of ore now qualified for processing. Taken over an extended period of time, the rate of daily production will be variable between the Heap-Leach and the Agitation-Leach. It is now the intent of 5M, Inc., to move expeditiously as possible into the mining and milling operations.

Uranium Projection:

As an adjunct to this Mining Plan, 5M, Inc., is now preparing an application with the Nuclear Regulatory Commission, Washington, D. C., for a Source Material License, commonly referred to as a NRC Permit, which when obtained will enable 5M, Inc., to produce uranium in a slurry and Yellow Cake form. It is proposed that these production facilities be located



5M, Inc.  
Silver Reef Mines  
Mining Plan

within the environs of the Silver Reef.

Environmental Study:

Pressing forward with the application, as referenced above, will require 5M, Inc., to finance and obtain a full scale, fully accredited, environmental Base Line Study of the Silver Reef area, and which will further fully qualify the uranium production project under the U. S. Government Nuclear Regulatory System. In the interim, it is the intent of 5M, Inc., to move forward with the mining and milling program for the recovery of copper and silver ores.